CLAIMS

What is claimed is:

1. A multimedia system comprises:

multimedia server operably coupled to receive a plurality of channels of a multimedia source, wherein the multimedia server includes:

tuning module operably coupled to receive the plurality of channels and to select a set of channels from the plurality of channels based on a set of channel select commands that is derived from select requests;

channel mixer operably coupled to mix the set of channels into a stream of channel data; and

transceiving module operably coupled to transmit the stream of channel data on to a communication path and to receive the select requests; and

client module that produces the select requests for at least one of a plurality of clients, wherein the at least one of the plurality of clients is operably coupled to receive at least a portion of the stream of channel data, wherein the client module includes:

selection module operable to produce at least one of the select requests; and

network interface controller operably coupled to transmit the at least one of select requests to the multimedia server and to receive the stream of channel data via the communication path.

2. The multimedia system of claim 1, wherein the plurality of clients comprises at least one of: a computer, a laptop computer, a personal digital assistant, a video telephone, a digital telephone, a cellular telephone, a monitor, a television, a high definition television, printer, and a facsimile machine.

3. The multimedia system of claim 1, wherein the multimedia server further comprises:

control module operably to the tuning module, the channel mixer, and the transceiving module, wherein the control module interprets the select requests to produce the set of channel select commands, wherein the control module facilitates formatting the stream of channel data for transmission via the transceiving module, and wherein the control module facilitates deformatting of the select requests.

4. The multimedia system of claim 3, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline connection utilizing a type of transceiving that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection

utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

5. The multimedia system of claim 3, wherein the control module further comprises:

host processor, external I/C bus, host memory, memory bridge interoperably coupled to provide server control operations, wherein the server control operations include:

interpreting the select requests to produce the set of channel select commands; and

coordinating the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

6. The multimedia system of claim 5, wherein the control module further comprises:

hard drive operably coupled to store at least a portion of the stream of data.

7. The multimedia system of claim 3, wherein the control module further comprises:

means for processing client access privileges for each of the plurality of clients.

8. The multimedia system of claim 1, wherein the transceiving module further comprises:

an analog multiplexor for converting the stream of channel data into analog signals, wherein the analog signals are

transmitted to the at least one of the plurality of clients.

9. The multimedia system of claim 1, wherein the multimedia server further comprises:

second transceiving module operably coupled to transmit the stream of channel data via a second communication path.

10. The multimedia system of claim 1, wherein the set of channel select commands comprises at least one of:

audio channel select;
video channel select;
audio source;
video source;
volume adjust;
picture quality settings and adjustments;
displaying restrictions;
purchase requests;
picture-in-picture activation and deactivation;
picture-in-picture channel select;
video blanking; and
audio muting.

11. The multimedia system of claim 1, wherein the transceiving module further comprises:

encoder operably coupled to encode the stream of data prior to transmitting the stream of channel data, wherein the encoder encodes the stream of data based on at least one of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where n < m.

12. A multimedia system comprises:

multimedia server operably coupled to receive data from a plurality of multimedia sources and to provide a stream of channel data from channels associated with the plurality of multimedia sources based on a set of channel select commands wherein the set of channel select commands are derived from select requests; and

a plurality of client modules operably coupled to the multimedia server to provide the select requests, wherein at least some of the plurality of client modules are operably coupled to a corresponding one of a plurality of clients, and wherein each of the corresponding ones of the plurality of clients displays at least a portion of the stream of channel data, wherein the at least a portion of the stream of channel data is based on at least one of the set of channel select commands provided to the multimedia server by an affiliated one of the at least some of the plurality of client modules.

13. The multimedia system of claim 12, wherein the multimedia server comprises:

tuning module operably coupled to receive the channels from the plurality of multimedia sources and to select a set of channels based on the set of channel select commands;

channel mixer operably coupled to mix the set of channels into the stream of channel data;

transceiving module operably coupled to transmit the stream of channel data on to a communication path and to receive the select requests; and

control module operably to the tuning module, the channel mixer, and the transceiving module, wherein the control module interprets the select requests to produce the set of channel select commands, wherein the control module facilitates formatting the stream of channel data for transmission via the transceiving module, and wherein the control module facilitates deformatting of the select requests.

14. The multimedia system of claim 13, wherein each of the plurality of client modules comprises:

selection module operable to produce at least one of the select requests; and

transmitting module operably coupled to the communication path to transmit the at least one of the select requests to the multimedia server.

15. The multimedia system of claim 13, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline connection utilizing a type of transceiving that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division

multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

16. The multimedia system of claim 13, wherein the control module further comprises:

host processor, external I/C bus, host memory, memory bridge interoperably coupled to provide server control operations, wherein the server control operations include: interpreting the select requests to produce the set of channel select commands; and

coordinating the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

17. The multimedia system of claim 16, wherein the control module further comprises:

hard drive operably coupled to store at least a portion of the stream of data.

18. The multimedia system of claim 13, wherein the control module further comprises:

means for processing client access privileges for each of the plurality of clients.

19. The multimedia system of claim 13, wherein the transceiving module further comprises:

encoder operably coupled to encode the stream of data prior to transmitting the stream of channel data, wherein the encoder encodes the stream of data based on at least one

of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where n < m.

20. A multimedia server for using a multimedia system, the multimedia server comprises:

tuning module operably coupled to receive a plurality of channels from a multimedia source and to select a set of channels from the plurality of channels based on a set of channel select commands that is derived from select requests;

channel mixer operably coupled to mix the set of channels into a stream of channel data; and

transceiving module operably coupled to transmit the stream of channel data on to a communication path and to receive the select requests from at least one client module affiliated with at least one of a plurality of clients.

21. The multimedia server of claim 20 further comprises:

control module operably to the tuning module, the channel mixer, and the transceiving module, wherein the control module interprets the select requests to produce the set of channel select commands, wherein the control module facilitates formatting the stream of channel data for

transmission via the transceiving module, and wherein the control module facilitates deformatting of the select requests.

22. The multimedia server of claim 21, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline connection utilizing a type of transceiving that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access

(CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

23. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the wireline connection:

router operably coupled to the channel mixer, to the tuning module, to the control module, to the client module via the wireline connection, and to the at least one of the plurality of clients via the wireline connection,

wherein the control module formats the stream of channel data based on the type of transceiving to produce formatted channel data,

wherein the router provides the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the wireline connection,

wherein the client module causes the select requests to be formatted based on the type of transceiving to produce formatted select requests,

wherein the router receives the formatted select requests via the wireline connection during receiving intervals on the wireline connection, and

wherein the control module determines the transmitting intervals and the receiving intervals.

24. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the transmit wireline connection:

transmission router operably coupled to the control module and the channel mixer,

wherein the control module causes the stream of channel data to be formatted based on the type of transmission to produce formatted channel data, and

wherein the transmission router provides the formatted channel data to the at least one of the plurality of clients.

25. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the receive wireline connection:

reception router operably coupled to the control module,

wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data, and

wherein the reception router receives the formatted reception data via the wireline connection.

26. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the radio frequency path:

radio frequency transceiving switch operably coupled to the channel mixer, to the tuning module, to the control module, to the client module via the radio frequency path, and to

the at least one of the plurality of clients via the radio frequency path,

wherein the control module causes the stream of channel data to be formatted based on the type of transceiving to produce formatted channel data,

wherein the radio frequency transceiving switch provides the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the radio frequency path,

wherein the client module formats the select requests based on the type of transceiving to produce formatted select requests,

wherein the radio frequency transceiving switch receives the formatted select requests via the radio frequency path during receiving intervals on the radio frequency path, and

wherein the control module determines the transmitting intervals and the receiving intervals.

27. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the transmit radio frequency path:

radio frequency transmitting switch operably coupled to the control module and the channel mixer,

wherein the control module causes the stream of channel data to be formatted based on the type of transmission to produce formatted channel data,

wherein the radio frequency transmitting switch provides the formatted channel data to the at least one of the plurality of clients via the transmit radio frequency path.

28. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the receive radio frequency path:

radio frequency receiving switch operably coupled to the control module,

wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data, and

wherein the radio frequency receiving switch receives the formatted reception data via the receive radio frequency path.

29. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the infrared path:

infrared transceiving switch operably coupled to the channel mixer, to the tuning module, to the control module, to the client module via the infrared path, and to the at least one of the plurality of clients via the infrared path,

wherein the control module causes the stream of channel data to be formatted based on the type of transceiving to produce formatted channel data,

wherein the infrared transceiving switch provides the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the infrared path,

wherein the client module causes the select requests to be formatted based on the type of transceiving to produce formatted select requests,

wherein the infrared transceiving switch receives the formatted select requests via the infrared path during receiving intervals on the infrared path, and

wherein the control module determines the transmitting intervals and the receiving intervals.

30. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the transmit infrared path:

infrared transmitting switch operably coupled to the control module and the channel mixer,

wherein the control module formats the stream of channel data based on the type of transmission to produce formatted channel data,

wherein the infrared transmitting switch provides the formatted channel data to the at least one of the plurality of clients via the transmit infrared path.

31. The multimedia server of claim 22, wherein the transceiving module further comprises, when the communication path includes the receive infrared path:

infrared receiving switch operably coupled to the control module,

wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data, and

wherein the infrared receiving switch receives the formatted reception data via the receive infrared path.

32. The multimedia server of claim 21, wherein the control module further comprises:

host processor, external I/C bus, host memory, memory bridge interoperably coupled to provide server control operations, wherein the server control operations include: interpreting the select requests to produce the set of channel select commands; and

coordinating the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

33. The multimedia server of claim 32, wherein the control module further comprises:

hard drive operably coupled to store at least a portion of the stream of data.

34. The multimedia server of claim 21, wherein the control module further comprises:

means for processing client access privileges for each of the plurality of clients.

35. The multimedia server of claim 20, wherein the transceiving module further comprises:

an analog multiplexor for converting the stream of channel data into analog signals, wherein the analog signals are transmitted to the at least one of the plurality of clients.

36. The multimedia server of claim 20 further comprises:

second transceiving module operably coupled to transmit the stream of channel data via a second communication path.

37. The multimedia server of claim 20, wherein the transceiving module further comprises:

encoder operably coupled to encode the stream of data prior to transmitting the stream of channel data, wherein the encoder encodes the stream of data based on at least one

of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where n < m.

38. A method for providing multimedia services to a local area network, the method comprises:

receiving a plurality of channels from at least one multimedia source;

receiving select requests from at least one client module via a communication path;

generating a set of channel select commands from the select requests;

selecting a set of channels from the plurality of channels based on the set of channel select commands;

mixing the set of channels into a stream of channel data; and

transmitting the stream of channel data on to the communication path such that at least one of a plurality of clients receives at least a portion of the stream of channel data.

39. The method of claim 38 further comprises:

interpreting the select requests to produce the set of channel select commands;

formatting the stream of channel data for transmission via the transceiving module;

deformatting of the select requests as part of generating the set of channel select commands.

40. The method of claim 38, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline connection utilizing a type of transceiving that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

41. The method of claim 40 further comprises, when the communication path includes the wireline connection:

formatting the stream of channel data based on the type of transceiving to produce formatted channel data,

providing the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the wireline connection,

receiving formatted select requests via the wireline connection during receiving intervals on the wireline connection, wherein the client module formats the select requests based on the type of transceiving; and

determining the transmitting intervals and the receiving intervals.

42. The method of claim 40 further comprises, when the communication path includes the transmit wireline connection:

formatting the stream of channel data based on the type of transmission to produce formatted channel data, and

providing the formatted channel data to the at least one of the plurality of clients.

43. The method of claim 40 further comprises, when the communication path includes the receive wireline connection:

receiving formatted reception data via the wireline connection, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data.

44. The method of claim 40 further comprises, when the communication path includes the radio frequency path:

formatting the stream of channel data based on the type of transceiving to produce formatted channel data;

providing the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the radio frequency path;

receiving formatted select requests via the radio frequency path during receiving intervals on the radio frequency path, wherein the client module formats the select requests based on the type of transceiving to produce the formatted select requests; and

determining the transmitting intervals and the receiving intervals.

45. The method of claim 40 further comprises, when the communication path includes the transmit radio frequency path:

formatting the stream of channel data based on the type of transmission to produce formatted channel data; and

providing the formatted channel data to the at least one of the plurality of clients via the transmit radio frequency path.

46. The method of claim 40 further comprises, when the communication path includes the receive radio frequency path:

receiving formatted reception data via the receive radio frequency path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

47. The method of claim 40 further comprises, when the communication path includes the infrared path:

formatting the stream of channel data based on the type of transceiving to produce formatted channel data;

providing the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the infrared path;

receiving formatted select requests via the infrared path during receiving intervals on the infrared path, wherein the client module formats the select requests based on the type of transceiving to produce the formatted select requests; and

determining the transmitting intervals and the receiving intervals.

48. The method of claim 40 further comprises, when the communication path includes the transmit infrared path:

formatting the stream of channel data based on the type of transmission to produce formatted channel data; and

providing the formatted channel data to the at least one of the plurality of clients via the transmit infrared path.

49. The method of claim 40 further comprises, when the communication path includes the receive infrared path:

receiving formatted reception data via the receive infrared path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

50. The method of claim 38 further comprises;

interpreting the select requests to produce the set of channel select commands; and

coordinating the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

51. The method of claim 38 further comprises:

storing at least a portion of the stream of data on a hard drive.

52. The method of claim 38 further comprises:

processing client access privileges for each of the plurality of clients.

53. The method of claim 38 further comprises:

converting the stream of channel data into analog signals, wherein the analog signals are transmitted to the at least one of the plurality of clients.

54. The method of claim 38 further comprises:

transmitting the stream of channel data via a second communication path.

55. The method of claim 38, wherein transmitting the stream of channel data on to the communication path further comprises:

encoding the stream of data prior to transmitting the stream of channel data, wherein the encoding of the stream of data is based on at least one of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where n < m.

56. An apparatus for providing multimedia services to a local area network, the apparatus comprises:

processing module; and

memory operably coupled to the processing module, wherein the memory stores operational instructions that cause the processing module to:

receive a plurality of channels from at least one multimedia source;

receive select requests from at least one client module via a communication path;

generate a set of channel select commands from the select requests;

select a set of channels from the plurality of channels based on the set of channel select commands;

mix the set of channels into a stream of channel data; and

transmit the stream of channel data on to the communication path such that at least one of a plurality of clients receives at least a portion of the stream of channel data.

57. The apparatus of claim 56, wherein the memory further comprises operational instructions that cause the processing module to:

interpret the select requests to produce the set of channel select commands;

formatting the stream of channel data for transmission via the transceiving module; and

deformatting of the select requests as part of generating the set of channel select commands.

58. The apparatus of claim 56, wherein the communication path comprises at least one of:

wireline connection, wherein the stream of channel data and the select requests are transceived via the wireline connection utilizing a type of transceiving that includes

at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

transmit wireline connection, wherein the stream of channel data is transmitted via the transmit wireline connection utilizing a type of transmission that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

receive wireline connection, wherein the select requests are received via the receive wireline connection utilizing a type of reception that includes at least one of: time division multiplexing, frequency division multiplexing, pulse code modulation, amplitude shift keying, phase shift keying, quadrature phase shift keying, quadrature amplitude

modulation, carrier sense multi-access (CSMA), CSMA with collision avoidance, and CSMA with collision detection;

radio frequency path, wherein the stream of channel data and the select requests are transceived via the radio frequency path utilizing the type of transceiving;

transmit radio frequency path, wherein the stream of channel data is transmitted via the transmit radio frequency path utilizing the type of transmission;

receive radio frequency path, wherein the select requests are received via the receive radio frequency path utilizing the type of reception;

infrared path, wherein the stream of channel data and the select requests are transceived via the infrared path utilizing the type of transceiving;

transmit infrared path, wherein the stream of channel data is transmitted via the transmit infrared path utilizing the type of transmission; and

receive infrared path, wherein the select requests are received via the receive infrared path utilizing the type of reception.

59. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the wireline connection:

format the stream of channel data based on the type of transceiving to produce formatted channel data,

provide the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the wireline connection,

receive formatted select requests via the wireline connection during receiving intervals on the wireline connection, wherein the client module formats the select requests based on the type of transceiving; and

determine the transmitting intervals and the receiving intervals.

60. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing

module to, when the communication path includes the transmit wireline connection:

format the stream of channel data based on the type of transmission to produce formatted channel data, and

provide the formatted channel data to the at least one of the plurality of clients.

61. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the receive wireline connection:

receive formatted reception data via the wireline connection, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce formatted reception data.

62. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the radio frequency path:

format the stream of channel data based on the type of transceiving to produce formatted channel data;

provide the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the radio frequency path;

receive formatted select requests via the radio frequency path during receiving intervals on the radio frequency path, wherein the client module formats the select requests based on the type of transceiving to produce the formatted select requests; and

determine the transmitting intervals and the receiving intervals.

63. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the transmit radio frequency path:

format the stream of channel data based on the type of transmission to produce formatted channel data; and

provide the formatted channel data to the at least one of the plurality of clients via the transmit radio frequency path.

64. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the receive radio frequency path:

receive formatted reception data via the receive radio frequency path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

65. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the infrared path:

format the stream of channel data based on the type of transceiving to produce formatted channel data;

provide the formatted channel data to the at least one of the plurality of clients during transmitting intervals on the infrared path;

receive formatted select requests via the infrared path during receiving intervals on the infrared path, wherein the client module formats the select requests based

on the type of transceiving to produce the formatted select requests; and

determine the transmitting intervals and the receiving intervals.

66. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the transmit infrared path:

format the stream of channel data based on the type of transmission to produce formatted channel data; and

provide the formatted channel data to the at least one of the plurality of clients via the transmit infrared path.

67. The apparatus of claim 58, wherein the memory further comprises operation instructions that cause the processing module to, when the communication path includes the receive infrared path:

receive formatted reception data via the receive infrared path, wherein the client module formats at least one of: the select requests and inbound data based on the type of reception to produce the formatted reception data.

68. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

interpret the select requests to produce the set of channel select commands; and

coordinate the mixing of the set of channels, formatting of the stream of channel data and transmitting the formatted channel data, such that a client of the plurality of clients receives appropriate requested data.

69. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

store at least a portion of the stream of data on a hard drive.

70. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

process client access privileges for each of the plurality of clients.

71. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

convert the stream of channel data into analog signals, wherein the analog signals are transmitted to the at least one of the plurality of clients.

72. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

transmit the stream of channel data via a second communication path.

73. The apparatus of claim 56, wherein the memory further comprises operation instructions that cause the processing module to:

encode the stream of data prior to transmitting the stream of channel data, wherein the encoding of the stream of data

is based on at least one of: multilevel encoding; non return to zero (NRZ) encoding; Manchester encoding; block encoding; and nB/mB encoding, where n < m.